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ABSTRACT

This profile is a "biographical sketch" of the nation's students based on information gathered in the 1986 and 1988 National Assessments of Educational Progress (NAEP) as part of their surveys of proficiencies in subject areas. The report is based primarily on data from the 1988 assessment, in which about 79,000 students in grades 4, 8, and 12 answered questions about their personal characteristics, home life, and schoolwork. The 1986 assessment involved about 73,000 students at grades 3, 7, and 11. Of particular note is that minority children compose a steadily increasing proportion of the nation's students, and this trend is likely to continue, with the most rapid growth in Hispanic and Asian populations. Data are provided in table and chart form for student characteristics that include: (1) race and ethnicity; (2) language other than English; (3) high school program; (4) achievement and failure; (5) attendance; (6) part-time employment; and (7) future plans. Aspects of home life that were investigated include parental work, parent-child relationships, and leisure time activities, including television viewing. The school program is examined for different subject areas. Using these data for educational improvement is briefly discussed. Twelve figures and 29 short tables present the profile information. Each profile contains references. (SLD)

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PROFILE
STUDENT CHARACTERISTICS FROM THE 1986 AND 1988 NAEP ASSESSMENTS

Michael E. Martinez
Colleen M. Lahart

Educational Testing Service
Princeton, New Jersey
October 1990

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PROFILE

Student Characteristics from the 1986 & 1988 NAEP Assessments

Michael E. Martinez

Colleen M. Lahart

Educational Testing Service

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PROFILE

Student Characteristics from the 1986 & 1988 NAEP Assessments

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PROFILE

Student Characteristics from the 1986 & 1988 NAEP Assessments

Profile is a "biographical sketch" of the nation's students based on information gathered in the 1986 and 1988 National Assessments of Educational Progress (NAEP) as part of their surveys of proficiencies in subject areas. The report is based primarily on data from the 1988 assessment, in which students from grades 4, 8, and 12, totalling approximately 79,000, answered questions about their personal characteristics, home life, and schoolwork. The 1986 assessment involved 73,000 students at grades 3, 7, and 11. A subset of the voluminous demographic and background data is reported here by a variety of variables, such as gender, race/ethnicity, and parental education. Our guide for deciding which variables to report and how to break them down was our sense of the interestingness and informational value of the data. Tables are accompanied by a graph when we thought a graph highlighted a trend or relationship that might go unnoticed in tabular form.

For several years, NAEP staff have discussed new ways of using the large quantity of background data collected. This report is a prototype for one such use. The background data are interesting, in part because many have associated research literatures concerning their relationships to school learning. Also, background data are usually available several months before the scaled proficiency data, and so could be released relatively quickly to the public. In accordance with the characteristics, the purpose of Profile is to demonstrate how national survey data on student background characteristics can be related to research on learning outcomes in a way that is interpretable by the lay person. Ideally, future versions of such a publication would be released soon after data collection, perhaps within a matter of a few months. Such a regular publication, we believe, would be useful for educational policymakers at all levels and would nicely complement the National Assessment "report cards" of subject and skill proficiency.

THE STUDENTS

Race/Ethnicity

"The composition of the next generation of school-children will be considerably different than that of the baby-boom generation."

Phillip Kaufman (1986)
The Condition of Education

Racial/Ethnic Background by Grade Level* (1988)	Grade 4 % of students	Grade 8 % of students	Grade 12 % of students
White	69.8 (0.2)	71.0 (0.1)	74.8 (0.3)
Black	15.2 (0.1)	14.8 (0.1)	13.4 (0.3)
Hispanic	10.9 (0.1)	10.3 (0.1)	7.8 (0.1)
Asian	2.0 (0.2)	2.6 (0.1)	3.0 (0.1)
American Indian	1.9 (0.1)	1.3 (0.1)	0.8 (0.2)

One continuing challenge to American education is to serve the great diversity of students in the nation's schools. Minority children compose a steadily increasing proportion of the nation's students, and this trend is likely to continue. The U. S. Bureau of the Census has projected that minority representation in the general population will continue to rise in the next century. The most rapid growth will take place within the Hispanic and Asian populations (Kellogg, 1988).[1]

To teachers, these demographic shifts mean accommodating more students who vary culturally and sometimes by their primary language. Along with these challenges, racial and ethnic diversity holds the potential to enrich the educational experience of all students.

Notes

* Data in this and other tables are followed, in parentheses, but standard errors of measurement. Standard error statistics estimate the error attributable to sampling and other random error. The estimated population mean, plus or minus 2 standard errors, presents a 95 percent confidence interval for the population mean. It can be said with about 95 percent certainty that the population mean falls within this interval.

1. Racial/ethnic diversity varies dramatically by state and by community. In 1985, most Southern and Southwestern states, and California, had minority student enrollments exceeding 35 percent (Hodgkinson, 1985). Likewise, urban school districts usually have high proportions of minority students. In 1982, for example, Atlanta, the District of Columbia, Newark, and San Antonio had minority enrollments over 90 percent (Kaufman, 1986). In the nation's 15 largest school systems, minority enrollment now ranges from 70 percent to 96 percent (Kellogg, 1988).

References

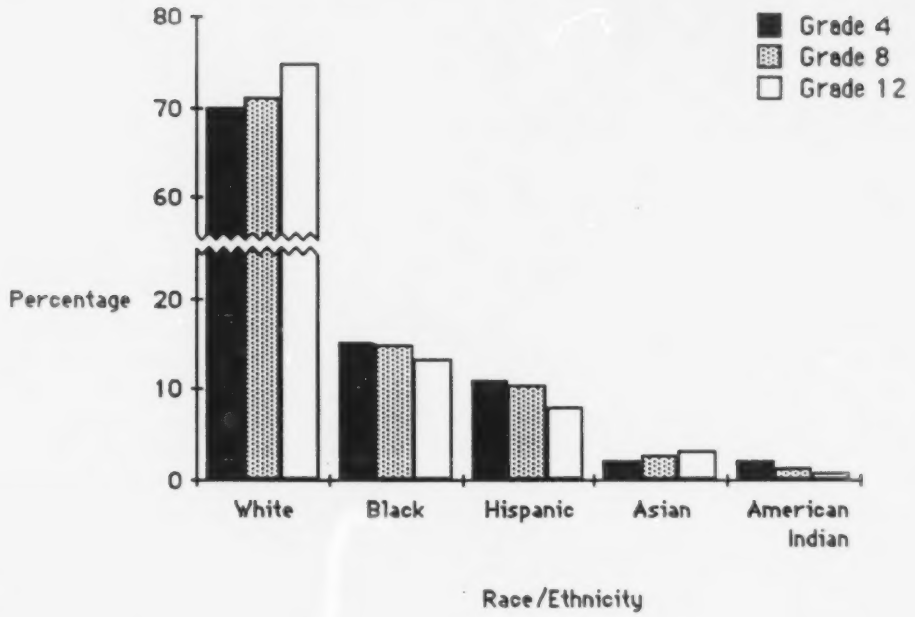
Hodgkinson, H. L. (1985). All one system. Washington, DC: Institute for Educational Leadership.

Kaufman, P. (1986). Trends in elementary and secondary public school enrollment. In J. D. Stern & M. F. Williams (Eds.), The condition of education. Washington, DC: U.S. Department of Education.

Kellogg, J. B. (1988). Forces of change. Phi Delta Kappa, 70, 199-204.

Figure 1

Racial/Ethnic Distribution Across Grades



Language Other Than English Spoken at Home

"Many students from families that speak a language other than English have difficulty in school . . . Schools must help these children develop full English competency, while respecting the child's native language and culture."

Schools That Work, p. 32
U. S. Department of Education, 1987

Percentage of Students Who Speak a Language Other Than English at Home (1988) By Grade Level			
	Grade 4	Grade 8	Grade 12
No	62.7 (0.9)	68.3 (0.6)	74.7 (0.5)
Sometimes	31.4 (0.8)	24.3 (0.5)	16.2 (0.4)
Always	5.9 (0.3)	7.4 (0.2)	9.1 (0.4)

A correlate of ethnic diversity is linguistic diversity. According to a recent study of adult literacy in the United States, about 15 percent of young adult Americans grew up in households where language other than English was spoken (Kirsch & Jungeblut, 1987). Much larger proportions of school-age children have been exposed to a language other than English at home. This exposure is more common in the lower grades, implying that two-language households are becoming more common.

Many children who speak more than one language face not only the social and academic expectations of the classroom, but also the challenge of learning by means of a new language.[1] It has been estimated that between 1.2 and 1.7 million children from language-minority families have limited English proficiency (U. S. Department of Education, 1987). This number is expected to increase. In 1981, the U. S. Department of Education (Kaufman, 1986) projected that the number of limited English proficiency children would rise 41.7 percent by the year 2000.

Notes

1. Many children who are limited in English proficiency are immigrants or children of immigrants. The U. S. is experiencing historic levels of immigration, comparable to the second great migration of 1900-1910. One-third of the new immigrants have come from Asia. In the past, most immigrants have spoken languages that have Latin roots and a Roman alphabet. But the Cambodian, Thai, and Laotian languages do not use the Roman alphabet and their sentence structure bears little relationship to English. Children who speak such languages may face acute challenges in mastering English (Kellogg, 1988). Without full command of the English language, immigrants may have difficulty securing equal educational opportunity. However, some experts believe that before English is mastered by immigrants, instruction in their native languages can enhance their chances of succeeding in school (First, 1988).

References

First, J. M. (1988). Immigrant students in U. S. public schools: Challenges with solutions. Phi Delta Kappan, 70, 205-210.

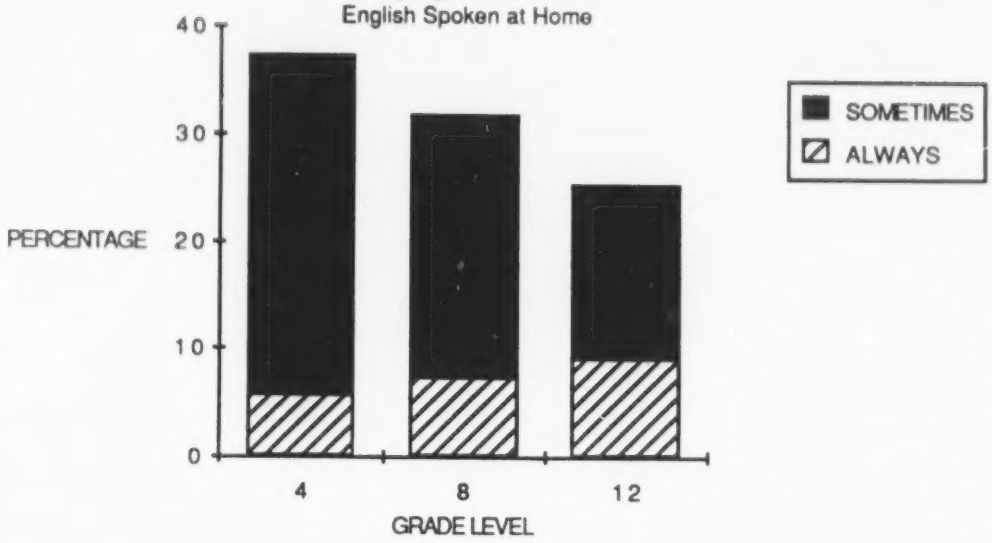
Kaufman, P. (1986). Trends in elementary and secondary public school enrollment. In J. D. Stern & M. F. Williams (Eds.), The condition of education. Washington, DC: U. S. Department of Education.

Kellogg, J. B. (1988). Forces of change. Phi Delta Kappa, 70, 199-204.

Kirsch, I. S. & Jungeblut, A. (1987). Literacy: Profiles of America's Young Adults. Princeton, NJ: National Assessment of Educational Progress.

U. S. Department of Education (1987). Schools that work: Educating disadvantaged children. Washington, DC: Author.

Figure 2
Language Other Than
English Spoken at Home



High School Program

"The direction in which education starts a man will determine his future life."

Plato
The Republic

High School Program by Gender and Race/Ethnicity (Grade 12/1988)	General % of students	Vocational % of students	Academic (%) % of students
Male	34.5 (1.5)	9.7 (0.6)	55.8 (1.6)
Female	33.0 (1.5)	7.0 (0.6)	60.0 (1.5)
White	32.0 (1.6)	7.6 (0.6)	60.4 (1.6)
Black	35.7 (1.8)	12.2 (1.3)	52.1 (1.5)
Hispanic	46.4 (1.8)	9.3 (0.9)	44.3 (1.8)
All	33.7 (1.4)	8.3 (0.5)	58.0 (1.4)

Most high school students choose, or are placed in, a course of study according to their aptitude and academic aspirations. Most high schools offer three programs: academic (college-preparatory), general, and vocational.

About 58 percent of twelfth graders are in academic programs, 33 percent are in general education programs, and about 8 percent are in vocational/technical programs.[1] In the academic programs, one finds disparities between subgroups: Females, for example, are more prevalent than males; White students are better represented than Black or Hispanic students.[2]

Notes

1. According to Oakes (1981),the representation of White and non-White students in vocational and technical programs is comparable. However, there are qualitative differences in the types of programs in which White and non-White students enroll. White students tended to be enrolled in courses that emphasized managerial and financial skills. Non-White and poor White students were better represented in courses that emphasized specific training in clerical or retail skills. Moreover, these programs more often took non-White students off the school campus for extended periods of time, a practice likely to distance them from academics and the regular context of schooling.
2. According to the Commission on Precollege Guidance and Counseling (1986), students are often unaware of the consequences of their academic choices, both in selecting a curriculum track and planning a high school program. Students with the least access to counseling about their academic futures are more likely to be disadvantaged in both social class and minority status (Lee & Ekstrom, 1986). These students are also the least likely to able to turn to their families for information on these matters. Often, students who need good advice the most get it the least.

References

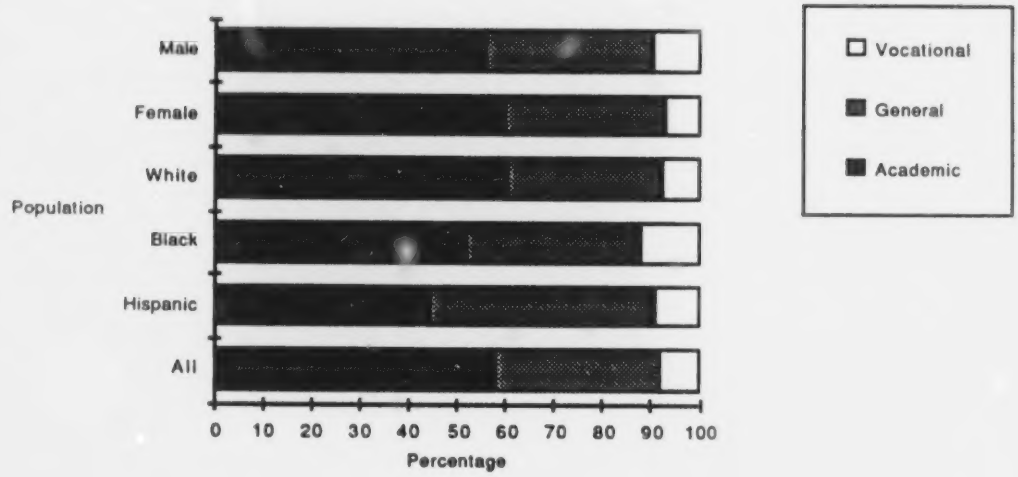
Commission on Precollege Guidance and Counseling (1986). Keeping the options open: An overview. (Interim report). New York: College Entrance Examination Board.

Lee, V. E. & Ekstrom, R. B. (1987). Students access to guidance counseling in high school. American Educational Research Journal, 24, 287-310.

Oakes, J. (1981). Limiting opportunity: Student race & curricular differences in secondary vocational education. (Technical Report No. 28, A study of schooling). Los Angeles, CA: Graduate School of Education, University of California. (ERIC Document Reproduction Service No. ED 214 896)

Plato, The republic, Book 1, Chapter 4, line 425-b.

Figure 3
High School Program



Top Students/Failing Students

"Female students received better grades than male students . . . Whites and Asian Americans reported better grades than other racial/ethnic groups."

Peng, Fetters, and Kolstad, 1981
High School and Beyond

Which Best Describes Your Grades? (Grade 12/1988)	Mostly A's % of students	Mostly D's or Below D % of students
Male	11.1 (0.4)	2.4 (0.2)
Female	14.8 (0.6)	0.8 (0.1)
White	14.6 (0.5)	1.4 (0.1)
Black	5.2 (0.5)	1.4 (0.2)
Hispanic	7.5 (0.8)	2.8 (0.3)
General	6.3 (0.5)	2.9 (0.2)
Academic	17.9 (0.6)	0.6 (0.1)
Voc/Tech	6.0 (0.5)	2.4 (0.3)
All	3.0 (0.4)	1.6 (0.1)

Who were the top twelfth-grade students in 1988? According to their own reports, girls received "mostly A's" on their report cards more often than boys[1]. Also, White students were more likely than Black or Hispanic students to earn mostly A's.

Students in academic programs were more likely to get high grades than those in other programs[2]. Few students indicated that they received mostly D's and F's on their report cards. This category of "failing" students was not clearly associated with gender or racial/ethnic group.

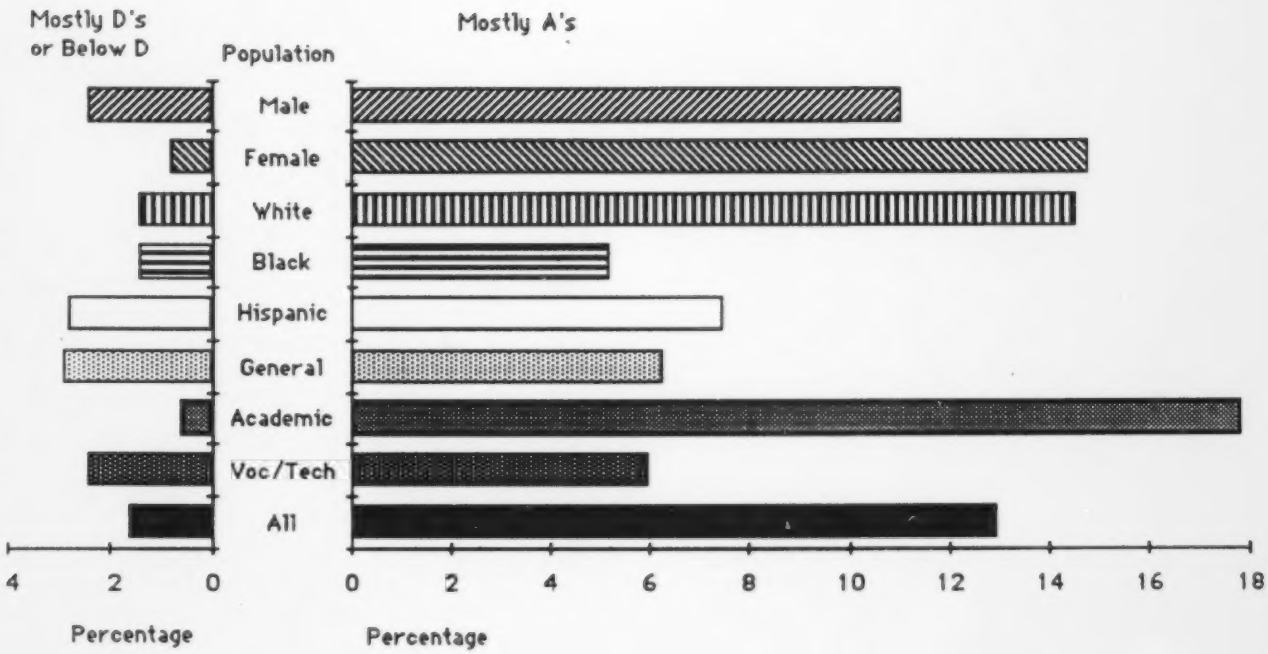
Notes

1. Using data collected in 1980, a national study of education, High School and Beyond (1981), also found that female students received higher grades than male students (Peng, Fetters, and Kolstad, 1981). The introductory quote refers to that finding.
2. Educators and employers have expressed concern about grade inflation, which refers to the pattern that, over time, comparable levels of achievement are rewarded with progressively higher grades. The High School and Beyond (1981) project found that the percentage of seniors receiving "mostly A's" or "about half A's and B's" increased from 29 percent in 1972 to 33 percent in 1980.

Reference

Peng, S. S., Fetters, W. B. & Kolstad, A. J. (1981). High school and beyond: A national longitudinal study for the 1980's. Washington, DC: National Institute of Education. (ERIC Document Reproduction Service No. ED 204 637)

Figure 4
Course Grades



Attendance

"Students who miss a lesson lose an opportunity to learn. Too many missed opportunities can result in failure, dropping out of school, or both"

What Works, 1986

Percentage of Students Reporting Good Attendance* (1988), by Race/Ethnicity and Gender	Grade 8	Grade 12
White	42.5 (0.8)	30.1 (0.8)
Black	47.1 (1.7)	33.7 (1.1)
Hispanic	41.1 (1.1)	26.1 (1.1)
Other	56.0 (1.8)	34.9 (2.5)
Male	46.3 (0.8)	33.8 (0.8)
Female	40.9 (0.8)	27.4 (0.7)
All	43.6 (0.8)	30.4 (0.7)

*Missed no more than one day of school last month

Our "good attendance" group reported that they missed no more than one day of school in the month before the NAEP assessment.[1] Black eighth graders were best represented in this group: 47.1 percent reported missing no more than one day of school in the previous month. Males were more likely than females to be in the "good attendance" group.

Here, some caution in interpretation is needed, since information reported here are from self-reports, with no independent check on their reliability. Second, students represented in this tally were those in school at the time of the assessment. It seems likely that children who frequently miss school were also absent at the time this information was collected.

Percentage of Students Reporting Poor Attendance* (1988), by Race/Ethnicity and Gender (1988)	Grade 8	Grade 12
White	8.2 (0.2)	10.7 (0.4)
Black	9.2 (0.5)	13.3 (0.6)
Hispanic	11.6 (0.5)	15.2 (0.8)
Other	7.7 (0.7)	12.1 (1.1)
Male	8.5 (0.3)	11.6 (0.4)
Female	8.9 (0.3)	11.3 (0.5)
All	8.6 (0.2)	11.4 (0.4)

*Missed Five Days or More of School Last Month

In some communities, poor school attendance is a major concern.[2] NAEP data show that Hispanic students were most likely to have attendance problems at school: 11.6 percent of Hispanic eighth graders reported missing five or more days of school in the month prior to the assessment. Females were about as likely as males to have "poor attendance."

Notes

1. Research has shown that school attendance is significantly related to students' general achievement (Porwoll, 1977). Easton and Engelhard (1982), for example, reported that regular school attendance is important for the development of reading skills.
2. Irregular school attendance can have a detrimental effect on students' achievement. Students who are regularly truant are more likely than others to drop out of high school and have lower earnings as adults (Robins, Ratcliff, & Strother, 1978).

References

Easton, J. Q., & Engelhard, G. (1982). A longitudinal record of elementary school absence and its relationship to reading achievement. Journal of Educational Research, 75, 269-274.

Porwoll, P. J. (1977). Student absenteeism. Arlington, VA: Educational Research Service.

Robins, L. N., Ratcliff, K. S., & Strother, K. (1978). Long range outcomes associated with school truancy. In I. Berg and L. Hersov. (Eds.), Truancy: Problems of school attendance and refusal, John Wiley & Sons. (ERIC Document Reproduction Service No. ED 152 893)

U. S. Department of Education (1986). What works: Research about teaching and learning. Washington, DC: Author.

Part-time Jobs

"The emergence of work as a major setting in which adolescents spend significant amounts of time presents special opportunities as well as problems."

Greenberger and Steinberg, 1980
Part-Time Employment of In-School Youth

Hours Per Week Worked in Part-Time Job (Grade 12/1988)					
	None	1-10	11-20	21-30	30+
% of Students	34.1 (0.8)	14.9 (0.3)	27.3 (0.3)	18.3 (0.3)	5.5 (0.3)

Many high school students devote considerable time and energy to part-time work. In 1988, almost two-thirds of twelfth-graders held part-time jobs. The majority of students in the NAEP sample worked 20 hours or less per week, but many spent more time on the job. Research has pointed out that part-time employment can be valuable if the setting[1] is appropriate and moderate amounts of time[2] are devoted to work. However, these conditions may be infrequently met.

Notes

1. An appropriate work setting can contribute to the development of personal responsibility and knowledge about business practices, financial concepts, and consumer matters. But many work settings do not provide such opportunities. Youngsters spend much of their time in activities which do not have a large cognitive component (e.g. in activities that involve cleaning and carrying). Furthermore, contact with adults is often limited in scope because little new learning is required (Greenberger and Steinberg, 1980).
2. Fifteen to twenty hours per week seems to be the break-even point where the costs of work begin to outweigh the benefits (Greenberger and Steinberg, 1980; Schill, McCartim, & Meyer, 1985). Adolescents from middle-income families have the highest frequency of part-time employment. Working adolescents from lower SES families tend to devote a large number of hours per week to their jobs, contributing, perhaps, to lower academic performance (Meyer, 1987).

References

Greenberger, E., & Steinberg, L., (1986). When teenagers work: The psychological and sociological costs of adolescent employment. New York: Basic Books, Inc., Publishers.

Greenberger, E. & Steinberg, L., (1980). Part-time employment of in-school youth. An assessment of costs and benefits. Final Report. Irvine, CA: University of California. (ERIC Document Reproduction Service No. ED 227 334)

Meyer, K. (1987). The work commitment of adolescence: Progressive attachment to the work force. Career Development Quarterly, 36, 140-147.

Schill, W. J., McCartim, R., & Meyer, K. (1985). Youth employment: Its relationship to academic and family variables. Journal of Vocational Behavior, 26, 155-163.

Future Plans

"Measures of academic aspirations show the educational plans of Blacks to be slightly higher than those of the White subsample, with Black females having the highest aspiration score. These findings are consistent with other studies."[1]

Kevin Bales, 1979
University of Mississippi

Plans for After High School (Grade 12/1988)				
	2-year College	4-year College	Work	Other Plans
% of Students	21.6 (0.6)	54.3 (1.3)	15.6 (0.6)	8.6 (0.3)

NAEP asked twelfth-graders about their plans upon leaving high school. A surprising proportion, almost three-fourths, said they planned to attend college, and almost half planned to study at a four-year college. Of the remainder, 15.6 percent intended to enter the work force and 8.6 percent had other plans.

Percentage of Students Planning to Attend College by Race/Ethnicity (Grade 12/1988)		
	2-year college	4-year college
White	20.7 (0.9)	55.2 (1.4)
Black	22.5 (1.3)	52.1 (2.1)
Hispanic	31.3 (2.0)	42.9 (2.5)
Other	16.3 (1.8)	65.4 (3.1)

Comparable proportions of Black and White twelfth-graders aspired to study at a four-year college. A lower percentage of Hispanic students planned to study at a four-year institution. Despite comparable aspirations among racial/ethnic groups, Black and Hispanic representation in colleges and universities falls short of the proportions of White students who are admitted. Moreover, between 1975 and 1982, college enrollment decreased 11 percent for Black students and 16 percent for Hispanic students. In the same time period, the number of Black and Hispanic high school graduates rose 29 percent and 38 percent, respectively (Hodgkinson, 1985). Two-thirds of students in the "other" category, which includes Asian-American and American Indian students, planned to go to a four-year college or university.

The statistics indicate that it is not for lack of aspiration that many minority students do not attend a four-year college. One challenge is to understand why so many aspiring students fail to realize their plans.[2]

Notes

1. Although the title of Bales's article refers to the single-parent family, his sample was not limited to students who live with only one parent.
2. Possible contributing factors to relatively low college enrollment among Black and Hispanic students are decreases in financial aid and inadequate high school counseling (Hodgkinson, 1985; Lee & Ekstrom, 1987).

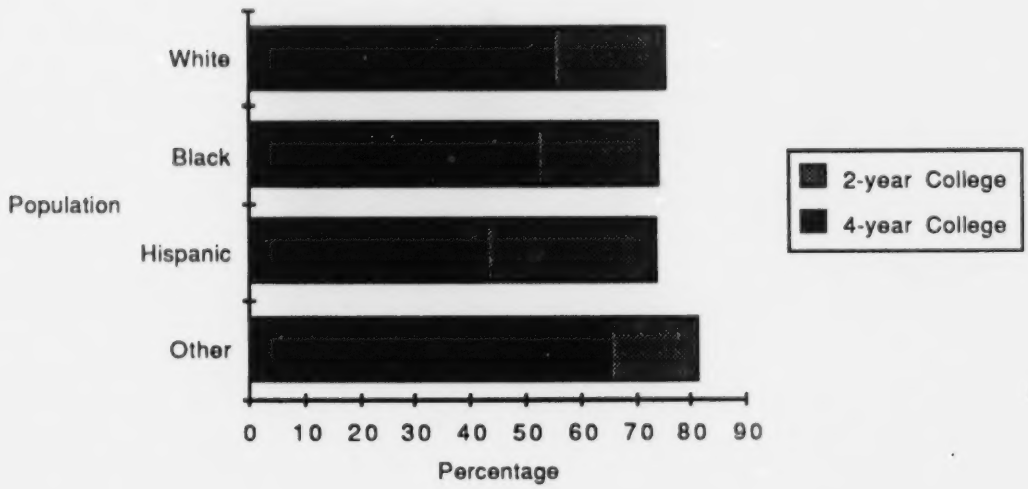
References

Bales, K. (1979). The single-parent family: Aspirations and academic achievement. Southern Journal of Educational Research, 13, 145-60.

Hodgkinson, H. L. (1985). All one system. Washington, DC: Institute for Educational Leadership.

Lee, V. E. & Ekstrom, R. B. (1987). Students access to guidance counseling in high school. American Educational Research Journal, 24, 287-310.

Figure 5
The College Bound
Grade 12
1988



HOME LIFE

Parents at Home

"It has been estimated the 59% of the children born in 1983 will have lived with only one parent at some point before reaching the age of 18."

Phillip Kaufman, 1986, citing
Norton & Glick, 1986

Which Parents Live at Home? (1988)	Grade 4 % of students	Grade 8 % of students	Grade 12 % of students
Mother Only	14.8 (0.4)	17.1 (0.4)	16.4 (0.4)
Father Only	2.5 (0.1)	2.9 (0.1)	2.9 (0.2)
Both Parents	79.7 (0.5)	77.6 (0.4)	76.3 (0.5)

Children raised by a single parent have become increasingly commonplace in the nation's classrooms. However, about three-fourths of students surveyed by NAEP lived at home with both their mother and father. In single-parent households, students were more likely to live with their mothers than with their fathers.[1]

Notes

1. Research involving the relationship between the number of parents living at home and cognitive performance is inconclusive (Milne, Myers, Ellman, & Ginsburg, 1983). Bales (1979) found that children with both parents living at home had slightly higher grade point averages and academic aspirations than children who had only one parent living at home. These relationships were weak, however, when socioeconomic status was controlled.

References

Bales, K. (1979). The single-parent family: Aspirations and academic achievement. Southern Journal of Educational Research, 13, 145-60.

Milne, A. M., Myers, D. E., Ellman, F. M., & Ginsburg, A. (1983). Single parents, working mothers, and the educational achievement of elementary school children. (Government Report No. 300-75-0332). Washington, DC: U.S. Department of Education. (ERIC Document Reproduction Service No. ED 234 092)

Parents at Work

"The context within which maternal employment takes place, the meaning it has for the family, and the social setting, determine its effects."

Lois Wladis Hoffman, 1980
The Effects of Maternal Employment

Which Parents Work?* (1988)	Grade 4 % of students	Grade 8 % of students	Grade 12 % of students
Mother Only	9.8 (0.4)	10.3 (0.3)	11.2 (0.2)
Father Only	24.5 (0.8)	21.5 (0.5)	21.6 (0.4)
Both Parents	60.5 (0.8)	41.2 (0.7)	44.2 (0.5)

* The columns do not add up to one-hundred percent because some students reported that neither parent worked, that the single parent they lived with did not work, or that they did not live with with either parent.

Over the past decade, the incidence of both maternal employment and the two-income family has risen[1]. In 1988, about half of the NAEP sample reported that both parents worked. About one-fourth of the children indicated that their family work arrangement is "traditional," where only the father works outside the home. These data include responses of children from single parent families.

Maternal employment appears to have differential effects on the academic performance of sons and daughters: In general, daughters are positively affected by maternal employment (Hoffman, 1980)[2]. Maternal employment may have a detrimental effect on the academic achievement of sons, especially those who have middle class backgrounds (Gold & Andres, 1978).

Notes

1. Between 1980 and 1985, women were hired for two-thirds of the new jobs created by the U. S. Economy (Grant, 1987). However, there is some evidence that, in recent years, more women are postponing their careers to devote more time to caring for their children (Fischer, 1986; Taylor, 1986).
2. Positive academic outcomes may result from the development of intervening variables such as independence, broader and more positive definitions of the female role, and the perception of women as competent (Hoffman, 1980).

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Adult Supervision

"Working parents are being forced to choose between perhaps their two highest priorities: Working . . . and adequate child care."

E. Grey & P. Coolsen, 1987
Children Today

Percentage of Fourth Graders with No Adult Supervision After School (1988)	
Male	21.5 (0.8)
Female	17.9 (0.6)
All	19.7 (0.6)

NAEP asked fourth-graders whether or not they have adult supervision when they get home from school. Twenty percent answered that they have no adult supervision when they arrive home.[1,2] But boys and girls differed in their answers. Nearly 22 percent of the boys had no adult supervision, compared with 18 percent of the girls.[3]

Notes

1. 1987 Census data show that 7.2 percent of children between the ages of 5 and 13 (about 2 million children) spend time in self care (U. S. Bureau of the Census, 1987). But Gray and Coolsen (1987) suggest that these data may be artificially low. Parents may feel reluctant to report this information because of guilt or concerns about their children's safety.
2. Researchers have found no difference between supervised and self-care children on school achievement. However, this conclusion is based on few studies (Galambos & Garbarino, 1982).
3. Overall, children express ambivalence concerning self-care. They report increased feelings of independence and competence as well as higher levels of fear and loneliness (Grey & Coolsen, 1987). Children living in the inner city report more negative experiences with self-care than their peers in rural areas (Galambos & Garbarino, 1982; Long & Long, 1982).

References

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Parents' Education

"Parents are the child's first and most influential teachers."

What Works: Research on Teaching & Learning
U. S. Department of Education 1986

Parents' Education (1988)	Grade 8 % of students	Grade 12 % of students
Mother		
Did not finish high school	12.3 (0.4)	13.0 (0.6)
Graduated from high school	32.8 (0.5)	33.3 (0.6)
Some education after h.s.	17.7 (0.3)	24.7 (0.5)
Graduated college	25.9 (0.7)	25.4 (0.9)
I don't know	11.3 (0.3)	3.7 (0.2)
Father		
Did not finish high school	10.9 (0.4)	13.6 (0.6)
Graduated from high school	25.7 (0.5)	25.6 (0.6)
Some education after h.s.	14.7 (0.3)	20.2 (0.4)
Graduated college	30.9 (0.9)	33.8 (1.2)
I don't know	17.9 (0.4)	6.8 (0.2)

Fathers were more likely to be college graduates than were mothers, according to the NAEP survey. Mothers were more likely than fathers to have graduated from high school and go no further. Across the NAEP subject-matter assessments, parental education was associated with students' proficiency.

References

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Figure 6a
Parents' Education
Grade 8 /1988

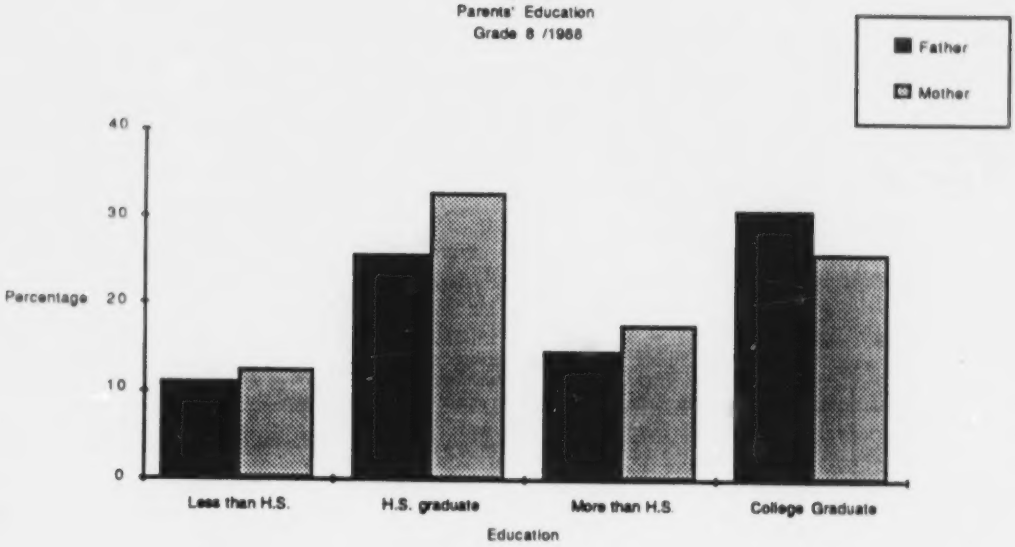
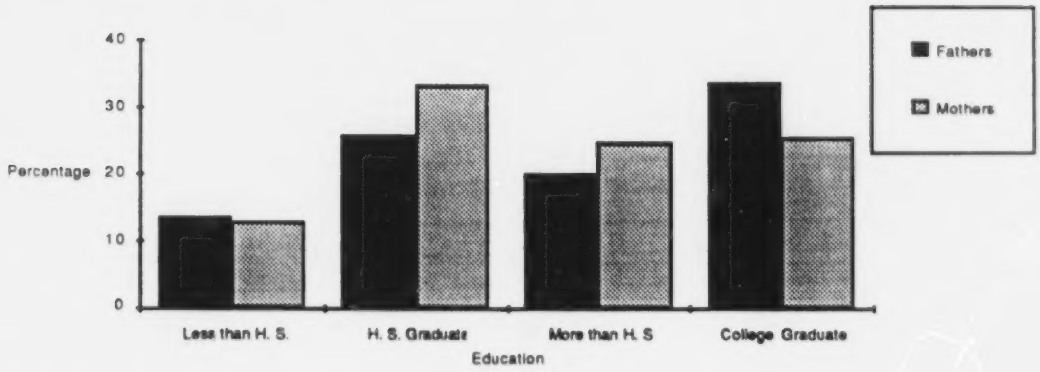


Figure 6b
Parents' Education
Grade 12
1988



Reading Materials

"If the goal of a more literate America is to be achieved, children must be given opportunities to read, motivation to read, and access to books."

Paul T. Wilson, Richard C. Anderson, & Linda C. Fielding 1986
Children's Book Reading Habits

Students Reporting Reading Materials at Home (1988)				
	>25 Books		Encyclopedia	
	Grade 8	Grade 12	Grade 8	Grade 12
Percentage of Students	92.2 (0.2)	93.9 (0.3)	80.4 (0.4)	84.6 (0.4)
	Newspaper		Magazines	
	Grade 8	Grade 12	Grade 8	Grade 12
Percentage of Students	76.4 (0.5)	82.2 (0.6)	77.5 (0.5)	84.7 (0.4)

Reading material in the home presents opportunity for learning and is a symbol of the literate household.[1] NAEP asked students whether they had more than 25 books, an encyclopedia, newspapers, and magazines in their homes. These items were common, especially books.[2] NAEP data from 1986 showed that the number of reading materials in the home is associated with reading proficiency (Applebee, Langer, & Mullis, 1988)

Percentage of Student Reporting Magazines in the Home by Grade and Parental Education (1988)		
	Grade 8	Grade 12
Less Than High School	54.3 (1.3)	63.2 (1.4)
High School Graduate	72.4 (0.7)	78.9 (0.7)
More Than High School	80.7 (0.6)	86.6 (0.5)
College Graduate	88.5 (0.4)	92.5 (0.3)

The higher the parents' education, the more likely were the homes to contain the reading materials (Applebee, Langer, & Mullis, 1988).[3] For example, when eighth graders were asked if their families got magazines regularly, about 54 percent of those students whose parents did not finish high school said "yes," but nearly 90 percent of those whose parents graduated from college responded affirmatively.

Notes

1. Leisure time spent reading is directly related to children's reading comprehension, the size of their vocabularies, and gains in their reading ability (U. S. Department of Education, 1986).
2. Although certain forms of print media are common, 1984 data showed that the number of reading materials in the home is decreasing. Increased use of non-print media, such as television may be partly responsible (U. S. Department of Education, 1987).
3. In referring to the relationship between parental education and the presence of magazines in the home, we do not make any statements about the quality or content of the magazines. Neither do we suggest that magazines in the home are always read by students.

References

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Television Viewing

"Children are spending the equivalent of two months a year watching television"

John Merrow, 1985
Children and Television

Hours of Television Watched per Day (1988)			
	Grade 4 % of students	Grade 8 % of students	Grade 12 % of students
None	1.3 (0.1)	1.3 (0.1)	3.0 (0.1)
1 hour	13.5 (0.3)	9.7 (0.3)	23.9 (0.5)
2 hours	16.1 (0.4)	18.2 (0.3)	25.1 (0.4)
3 hours	17.2 (0.4)	21.8 (0.3)	20.0 (0.3)
4 hours	14.7 (0.4)	19.7 (0.3)	14.2 (0.4)
5 hours	10.1 (0.3)	12.4 (0.2)	7.1 (0.2)
6+ hours	27.1 (0.7)	16.8 (0.4)	6.7 (0.2)

Television has been hailed as both an educational breakthrough and a menace to learning. Television's negative effects on students' learning are linked to excessive viewing: Viewing time can squeeze out other experiences, such as reading books, that are potentially more intellectually edifying.

NAEP data from 1986 showed that third- and seventh-graders who watched about two hours of television a day had higher reading proficiencies than students who watched for more time or less. Greater or less viewing time was associated with lower reading proficiency.[1]

The problem of excessive television viewing is especially serious among younger children. In 1988, 27 percent of fourth-grade students watched six or more hours of television each day, and 17 percent of eighth graders did so. Other research supports the finding that the proportion of children who watch large amounts of television has risen in recent years.[2]

Television Viewing: Six Hours or More Each Day (1988)			
	Grade 4 % of students	Grade 8 % of students	Grade 12 % of students
White	21.1 (0.7)	12.4 (0.4)	4.4 (0.2)
Black	49.6 (1.7)	36.0 (1.2)	18.8 (0.8)
Hispanic	33.2 (1.2)	20.0 (0.9)	7.6 (0.6)
Other	30.8 (1.9)	16.4 (1.4)	6.0 (1.3)
Rural	24.2 (2.2)	13.7 (1.6)	8.1 (0.9)
Lo Metro	43.6 (1.9)	27.2 (2.3)	10.9 (1.3)
Hi Metro	18.0 (1.7)	11.7 (1.4)	3.7 (0.4)
All	27.1 (0.7)	16.8 (0.4)	6.7 (0.2)

Viewing habits differ substantially among racial/ethnic groups and across grades. Nearly 50 percent of Black fourth-graders reported watching six or more hours of television each day. Across grades, Black students indicated a greater propensity for television viewing than did students in other racial/ethnic subgroups.

Students living in low-socioeconomic metropolitan communities were more likely to watch a great deal of television than students living in advantaged (higher SES) metropolitan communities. Proportions of students watching six or more hours of television each day dropped off steeply at higher grade levels. Even so, almost one-fifth of eleventh grade Black students watched six or more hours of television each day.

Notes

1. Williams, Haertel, Haertel, and Walberg (1982) conducted a synthesis of research on television viewing and academic achievement. They found that the overall correlation of hours of television viewing and achievement is negative (-.05) but small, and is consistent over sample size, year, and location. The effect is not constant across the range of viewing times. Television viewing has slightly positive effects for up to ten hours of viewing per week. Beyond ten hours, the effects are negative and increasingly more deleterious until viewing time reaches 35-40 hours per week. Optimal levels of television viewing time may be slightly higher for children who have lower socioeconomic backgrounds (Ward, Mead, & Searles, 1983).
2. Some research has indicated that children whose parents set rules for watching television have higher intelligence and greater educational achievement (Ridley-Johnson, Cooper, & Chance, 1982).

References

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Figure 7a
Hours of Television Watched
per Day
1988

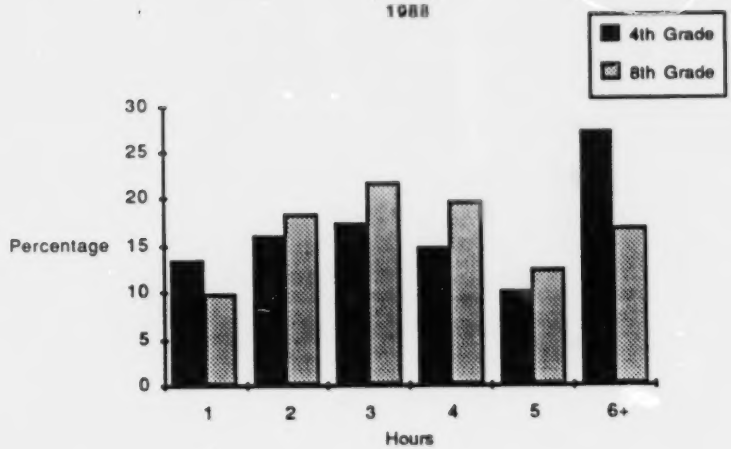
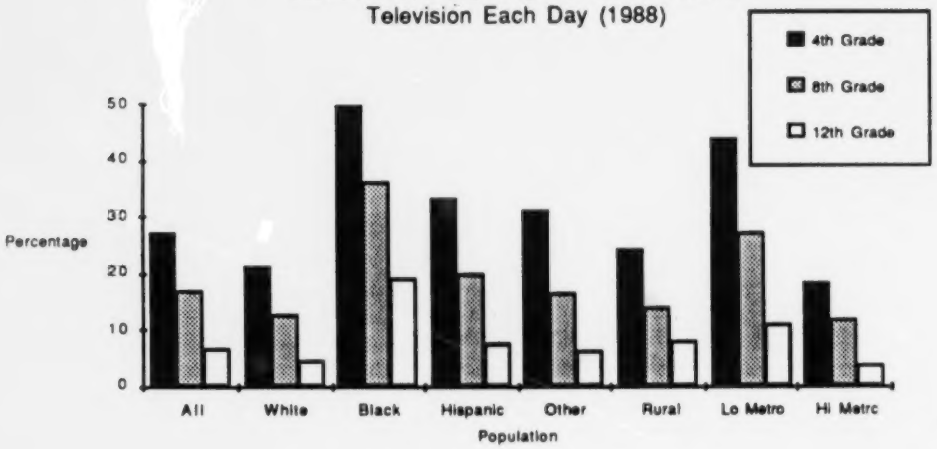


Figure 7b
Students Who Watch Six or More Hours of
Television Each Day (1988)



Computer Ownership

"We are already seeing signs of disadvantagement. There is evidence of class-, race-, and gender-based differences in computer use."

Michael W. Apple, 1987
Hidden Effects of Computers on Teachers and Students

Computer Ownership and Computer Competence* (1986)	Grade 3		Grade 7		Grade 11	
	%	Competence	%	Competence	%	Competence
Owns Computer	28.7(1.0)	36.4 (0.7)	32.8(0.8)	46.1 (0.4)	30.1(0.8)	52.7 (0.7)
Does Not Own Computer	71.3(1.0)	32.5 (0.3)	67.2(0.8)	38.9 (0.3)	69.9(0.8)	43.5 (0.3)

Computer competence data were not scaled; competence was operationalized as the mean percent correct on the assessment.

The NAEP report, Computer Competence: The First National Assessment, showed that, for many students, the home is an important place for learning about computers.[1] One-quarter to one-third of NAEP participants reported that their families own a computer. Across grades, the presence of a computer at home was associated with higher computer competence.

Computer Ownership by Families of Male and Female Students (1986)	Grade 3	Grade 7	Grade 11
	% of students	% of students	% of students
Male	31.0 (1.0)	37.2 (0.9)	36.4 (0.8)
Female	25.7 (0.7)	27.5 (0.7)	25.1 (0.6)

Families of boys were more likely to own a computer than were families of girls. In the eleventh grade, for example, 36 percent of boys' families had a computer, compared with 25 percent of girls' families. This gap was nearly as great in the seventh grade.[2] If having a computer at home is important to developing computer-related competence--and NAEP data show a clear relationship--boys have an advantage in becoming computer competent.

Notes

1. Junior high school students who owned a computer were more likely to report an interest in taking a computer programming course in high school and to consider a computer-related career than students who did not own a computer (Miura 1984).
2. These findings are consistent with Lockheed's (1985) data which showed that males report greater access to and use of computers in the home than do females. In a survey of 87 middle school students Miura & Hess (1983) found that boys were more than twice as likely as girls to have a computer at home.

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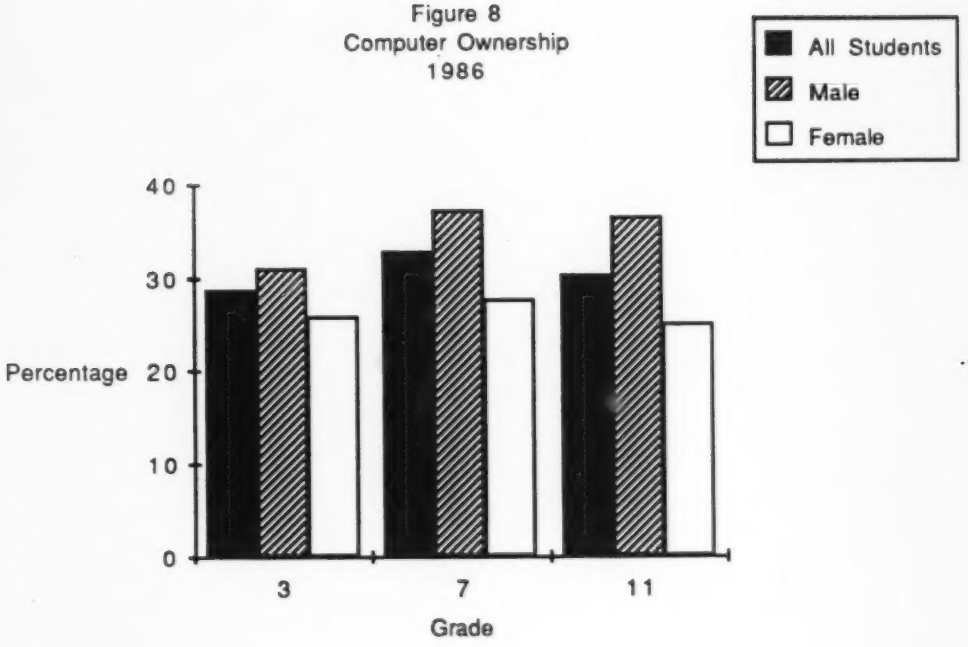
Figure 8
Computer Ownership
1986



THE SCHOOL PROGRAM

Math

"Few youngsters can put mathematics to work effectively in solving everyday problems."

Gregory Anrig, 1988
The Mathematics Report Card

Percentage of Students Who Have Taken Mathematics (Grade 12/1988)	1st Yr Algebra	2nd Yr Algebra	Trigonometry
White	92.2 (0.5)	70.7 (1.1)	42.4 (1.6)
Black	85.9 (1.5)	59.7 (2.0)	31.1 (2.1)
Hispanic	87.3 (1.7)	60.2 (1.9)	29.8 (2.2)
Other	94.7 (1.0)	81.2 (2.5)	61.5 (2.9)
Northeast	91.3 (1.2)	73.4 (2.2)	49.8 (4.0)
Southeast	86.5 (1.6)	61.4 (2.3)	32.5 (1.8)
Central	92.4 (0.9)	69.4 (2.2)	41.7 (2.7)
West	93.7 (0.7)	71.0 (1.8)	38.7 (2.5)
All	91.1 (0.6)	69.0 (1.0)	40.9 (1.5)

There is considerable variation among subgroups in mathematics enrollment. About 41 percent of the respondents indicated that they had taken a course in trigonometry.[1, 2] White students were more likely than Black or Hispanic students to have taken the course.[3] Trigonometry was often taken by students in the racial/ethnic category, "Other," which includes American Indian and Asian-American students.

In the Northeast region of the United States, 50 percent of students had taken trigonometry. In the Central and Western regions, close to 40 percent had studied trigonometry, and in the Southeast 33 percent of students had taken the course.

Notes

1. Despite the fact that most students perceive math skills to have practical importance, less than half the NAEP sample expected to use these skills in their future careers. (Dossey, Mullis, Lindquist, & Chambers, 1988).
2. Data from the recent International Assessment of Educational Progress (1989) show that 13-year-old American students ranked last among 12 countries and Canadian provinces in mathematical proficiency. (Lapointe, Mead, & Phillips, 1989).
3. Although the math performance of Blacks and Hispanic students is lower than that of White students, recent data show that Black and Hispanic students are making progress in narrowing the gap in mathematics proficiency (Dossey, Mullis, Lindquist, & Chambers, 1988).

References

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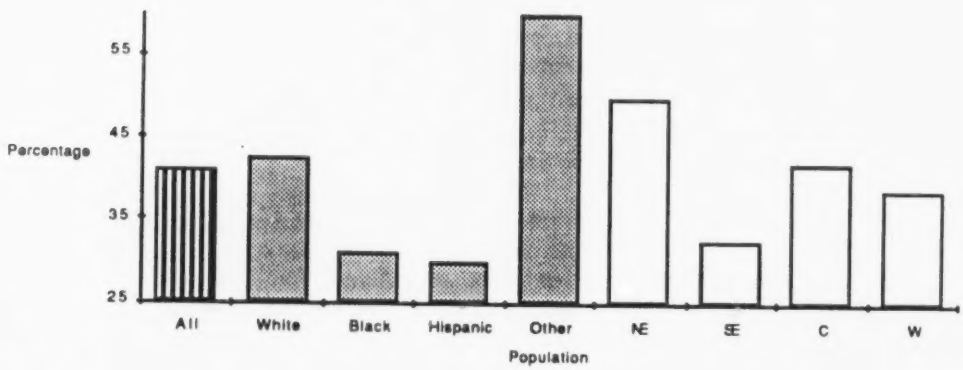
Figure 9
12th Grade Students Who Have
Taken Trigonometry
1988



Computers

"If you view the computer as the most powerful intellectual assistant ever created, and assume that schools are giving kids the opportunity to gain some real skill in using this remarkable tool, then you are in for a disappointment."

Marc Tucker
Statement on findings from:
Computer Competence: The First National Assessment, 1988

Percentage of Students Studying Computers (1986)			
	Grade 3	Grade 7	Grade 11
Hi Metro	61.6 (7.2)	53.7 (7.8)	20.2 (3.4)
Lo Metro	46.9 (7.3)	33.2 (6.8)	22.2 (1.7)
Rural	39.3 (8.9)	30.3 (5.6)	28.2 (1.6)
Northeast	48.7 (7.3)	51.1 (3.8)	24.7 (2.5)
Southeast	44.8 (3.4)	33.3 (4.9)	19.1 (1.8)
Central	46.9 (3.4)	38.8 (7.3)	20.8 (1.4)
West	52.5 (4.3)	36.8 (4.5)	18.7 (1.1)
All	48.4 (2.1)	39.5 (2.5)	20.8 (0.9)

In 1986, NAEP asked students in the third, seventh, and eleventh grades whether they were studying computers in school. Acknowledging that "studying computers" means different things at the different grade levels[1], many students had access to instruction in some form. What students often lacked was significant exposure to general-purpose computer applications, such as word processing, and computer experience integrated into the subject-matter areas (Martinez & Mead, 1988).

Third- and seventh-graders from high-socioeconomic metropolitan communities were most likely to have been studying computers at school. But among eleventh graders, those living in rural communities were most likely to have been taking a computer course. Seventh graders in the Northeastern U. S. were more likely to have been studying computers than were their peers from other regions.[2] For example, 51 percent of seventh graders in the Northeast said they were studying computers compared to 33.3 percent of seventh graders in the Southeast.

Percentage of Students Who Had Taken Computer Programming (Grade 11/1986)	
Male	33.3 (1.0)
Female	28.0 (1.0)
All Students	30.6 (0.9)

Eleventh graders were asked if they had taken a course in computer programming. In the eleventh grade, a higher percentage of males than females had taken a computer programming course. One-third of the boys were studying programming, compared with 28 percent of the girls.[3]

Notes

1. In classrooms, computers are used in a variety of ways, from teaching aids that range in sophistication from drill-and-practice devices to intelligent tutoring systems that can diagnose student errors and provide relevant remedial instruction (Lapointe & Martinez, 1988).
2. Research has shown that students do not have equal access to computers. In particular, males and White students have more experience with computers at home and in school than do females or students of other racial/ethnic backgrounds. Policymakers must consider this imbalance when deciding what role computers should play in education (Lapointe & Martinez 1988).
3. NAEP data showed that sex differences in computer were evident as low as the third grade: boys report more frequent use of computers than girls. Researchers at the Computer Equity Training Project pointed out the potential problems for women who choose not to learn about computers: " Girls who choose to avoid a computer now may well be forced to avoid a well-paying job later on." (Sanders 1985). There is evidence, however, that interventions can successfully increase girls' voluntary participation in computer activities (Fish, Gross, & Sanders 1986).

References

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Mullis, I. V. S., & Jenkins, L. B. (1988). The science report card: Elements of risk and recovery. Princeton, NJ: Educational Testing Service.

Science

"We live in a society--and a nation, and a world--exquisitely dependent on science and technology in which hardly anyone knows anything about science and technology. This is a clear prescription for disaster."

Carl Sagan
Statement on findings from
The Science Report Card, 1988

What Is the Main Thing Studied in Science This Year? (Grade 7/1986) Percentage of Students	
Life Science	46.0 (2.5)
Physical Science	8.5 (1.6)
Earth Science	9.5 (1.7)
General	24.5 (1.3)
Other	5.2 (0.4)
No Science	6.3 (1.1)
White	4.4 (0.9)
Black	7.0 (1.7)
Hispanic	16.9 (4.9)

Questions about science instruction varied by grade level. Third graders were asked how often they studied science. Forty-eight percent said that they study science more than once per week, but nearly one-quarter indicated that they never study the subject.[1]

Life science was the subject most often studied in seventh-grade science class. Only 8.5 percent of the seventh grade respondents indicated that they studied mostly physical science. There were notable racial/ethnic differences among students who said that they did not study science at all--17 percent of Hispanic students were included in this category.[2]

Notes

1. William Bennett (1986) suggested that the science curriculum in elementary school often gets shortchanged. The Association for Supervision and Curriculum Development reports that in the fourth grade an average of only 28 minutes per day are allocated to teach science, but in reality, students may receive a lot less science instruction. (Cawelti & Adkisson, 1985).
2. American students lag behind students from other countries in science knowledge. In one international comparison, the International Assessment of Educational Progress (IEAP), the United States ranked ninth out of twelve participating countries and Canadian provinces. This poor performance was supported by another international comparison (IEA, 1988) in which American 10-year-olds had mediocre performances: Students aged 14 and 17 ranked near the bottom of a list of 17 participating countries. When compared with their international peers, American students performed poorly in chemistry, physics, and biology.

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Mullis, I. V. S., & Jenkins, L. B. (1988). The science report card: Elements of risk and recovery Princeton, NJ: Educational Testing Service.

English

"Students in academic programs spent more time in the study of literature than did those in other programs . . . Further, students in academic programs were involved in somewhat more discussion about what they read than were their classmates in other programs."

A. N. Applebee, J. A. Langer & I. V. S. Mullis
Literature and U. S. History 1987

English Course Enrollment (Grade 12/1988) Percentage of Students	
Not in English	5.2 (0.7)
Remedial	1.6 (0.1)
General	39.3 (1.3)
College-Prep	36.3 (1.3)
Advanced Placement	17.5 (0.9)

In 1988, about 40 percent of the twelfth-grade students were enrolled in general English courses. Most others studied college-preparatory or advanced-placement English.[1] Few seniors were enrolled in a remedial English course or no English course at all.

English Course Enrollment by Parental Education (Grade 12/1988)	College-Prep % of students	AP English % of students
Less Than High School	21.9 (1.7)	9.4 (0.9)
High School Graduate	28.3 (1.2)	11.8 (0.6)
More Than High School	38.3 (1.6)	15.0 (1.0)
College Graduate	42.9 (1.7)	23.8 (1.3)

Enrollment in the higher-level English courses was closely associated with the educational attainment of students' parents. Children of college graduates were more than twice as likely to study college-prep or AP English than were children of parents who did not complete high school.

Notes

1. Academic track English courses differ substantially in content and approach from general English track courses. Research suggests that students in the academic track spent more time studying and discussing literature than did their peers in other programs. Also, students in the academic programs were required to construct literary analyses of their required readings while those in general English courses were responsible for basic plot summaries. In general, students in the academic track English programs received more intense exposure to literature than did students in the general English courses. (Applebee, Langer, & Mullis 1987).

References

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Figure 10a
Type of English Class Taken by
12th Graders
1988

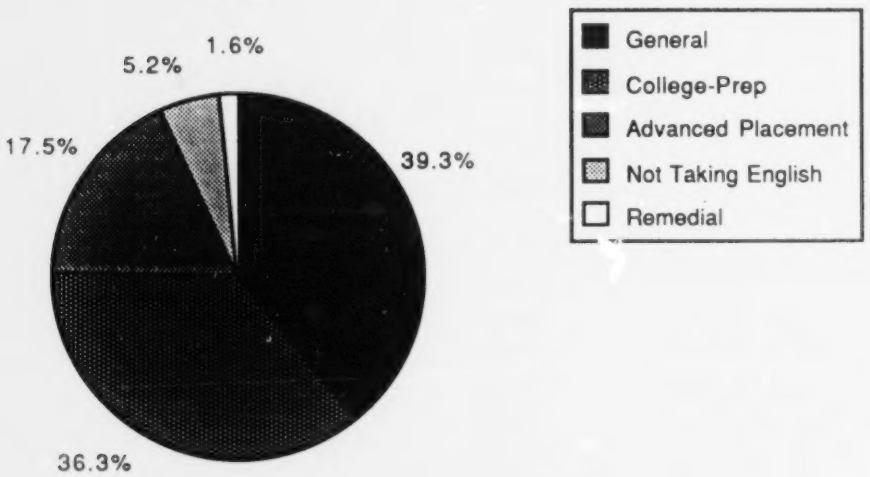
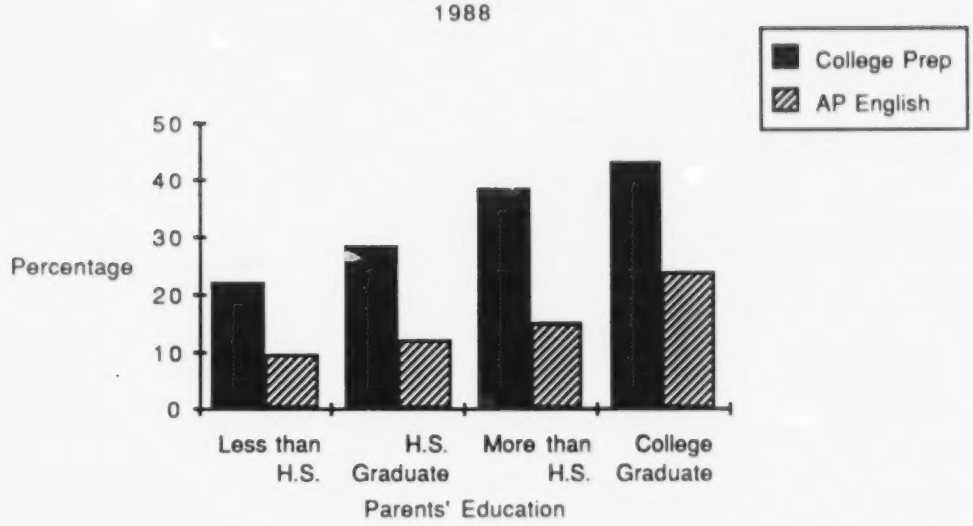


Figure 10b
12th Graders
English Course Enrollment by Parental Education
1988



U.S. History

"Young citizens need to hear the glorious story of the development of uncommon liberties and freedoms. If citizens are deprived of such national memory . . . democratic society comes to resemble a ship of fools, without anchor or compass."

Gilbert T. Sewall, 1988
American History Textbooks

Percentage of Students Taking U.S. History (Grade 11/1986)	
White	81.9 (2.1)
Black	86.8 (1.1)
Hispanic	84.2 (3.0)
Other	86.3 (2.2)
General	83.0 (1.7)
Academic/College Prep	83.6 (1.7)
Voc/Tech	78.4 (3.4)
All	82.9 (1.7)

Recently, it has become clear that many American high school students are not well versed in the basic facts of their nation's history (Finn & Ravitch, 1988). As Sewall eloquently points out in the quote above, students who lack a knowledge of their past are likely to be poorly equipped to participate in a democracy.

Most eleventh-grade students were enrolled in a U. S. history course in 1986.[1] Enrollment in the course was not closely associated with any background variable, such as race/ethnicity, but students from vocational/technical programs were slightly less likely to be enrolled in U. S. history than students from other programs.

Note

1. Some researchers have found that most secondary school students take only one history course during their high school career (U. S. Department of Education, 1986).

References

Finn, C. E. & Ravitch, D. (1988). What our 17-year-olds don't know. The Education Digest, 53, 36-40.

Sewall, G. T. (1988). American history textbooks: where do we go from here. Phi Delta Kappan, 69, 553-558.

U. S. Department of Education (1986). What works: Research about teaching and learning. Washington, DC: Author.

Foreign Language

"The geographic isolation of the United States and the growing importance of English in the world have contributed to giving Americans a false sense of security vis-à-vis their need for foreign language competence."

Else Hamayan
ERIC Digest November 1986
The Need for Foreign Language Competence in the United States

Foreign Language Taken Since 9th Grade (Grade 12/1988)	None % of students	1-2 years % of students	3 or more years % of students
Male	25.9 (1.3)	48.4 (1.2)	25.6 (1.2)
Female	16.9 (1.0)	50.4 (1.3)	32.7 (1.2)
White	20.4 (1.1)	49.2 (1.2)	30.5 (1.0)
Black	29.1 (1.4)	51.2 (1.4)	19.8 (1.5)
Hispanic	17.9 (1.2)	52.7 (1.9)	29.4 (1.4)
Other	14.9 (2.1)	43.6 (2.6)	41.5 (2.5)
Northeast	14.6 (2.0)	40.7 (2.4)	44.7 (2.2)
Southeast	29.3 (2.1)	52.4 (2.3)	18.3 (1.0)
Central	22.1 (1.9)	48.6 (2.1)	29.3 (2.3)
West	19.1 (1.5)	56.4 (1.6)	24.5 (1.4)
All	21.1 (1.0)	49.5 (1.0)	29.5 (0.9)

Twelfth grade students were asked how many years of foreign language instruction they had taken during high school. Half of the students indicated that they had received at least one year of instruction,[1] and another 29.5 percent had studied a foreign language for three or more years.

A higher proportion of students in the racial/ethnic category, "Other", which included American Indians and Asian-Americans, reported taking a foreign language course for three or more years. Also, females were more likely than males to take foreign language courses for three or more years.

Students least likely to enroll in a foreign language course were males, Black students, and students living in the southeastern states.

Note

1. The National Commission on Excellence in Education (1983) estimated that four to six years of study are required to achieve proficiency in a foreign language. They recommended that students begin foreign language instruction in elementary school and continue taking foreign language courses for a minimum of two years during high school. Oxford & Rhodes, (1988) found that Spanish, French, German, and Latin are the four most common foreign languages offered in secondary schools across this country. They concluded that the foreign language exposure that students typically receive is inadequate to produce proficiency.

References

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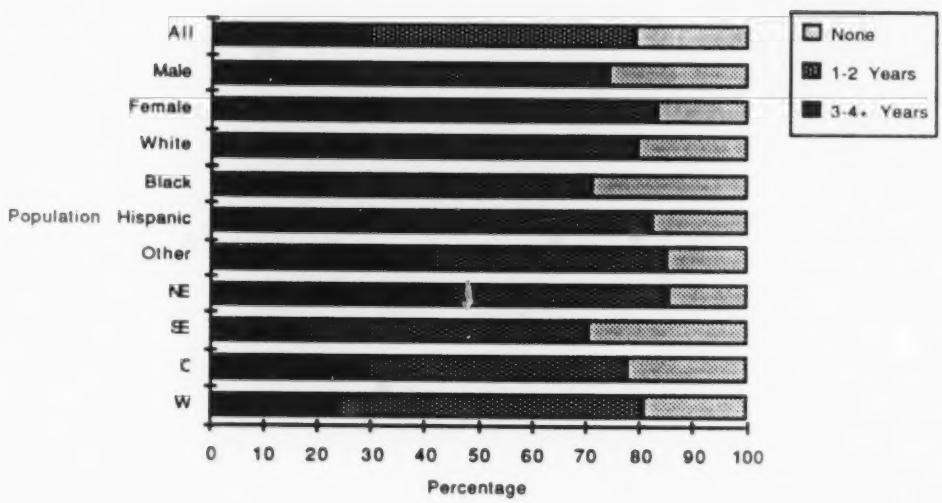
Oxford, R. L., & Rhodes, N. C. (1988). U. S. foreign language instruction: Assessing needs and creating an action plan. Washington, DC: ERIC Clearinghouse on Languages and Linguistics News Bulletin, 11, No.2, 1,6-7.

The National Commission on Excellence on Education. (1983). A nation at risk. The imperative for educational reform. Washington, DC: U. S. Government Printing Office. Author.

Figure 11
How Many Years of Foreign
Language Have 12th Graders
Taken
1988



Homework

"Homework has value as a process: one that teaches a child to organize time, work independently, use good study skills, and develop self-discipline."

Homework: It Can Help
New Jersey Education Association

Time Spent on Homework Each Day (1988)	Grade 8 % of students	Grade 12 % of students
Don't Do Homework	5.9 (0.2)	8.7 (0.3)
Have None	5.1 (0.3)	9.0 (0.5)
1/2 Less than 1 Hour	19.6 (0.4)	20.2 (0.5)
1 Hour	42.1 (0.5)	33.1 (0.4)
2 Hours	19.2 (0.4)	18.7 (0.5)
More than 2 Hours	8.1 (0.4)	10.3 (0.5)

When eighth and twelfth high graders were asked how much time they spent on homework each day, the most frequent response was one hour. More than one-quarter of the students spend two hours or more each day on homework.

Data from 1986 show that time spent on homework is positively related to reading and mathematics proficiencies.[1] However, this relationship reverses for seventh graders who spend more than two hours each day on homework--proficiencies drop off slightly.

Time Spent on Homework Each Day (1988)				
	More Than 2 Hours		Don't Do Homework	
	Grade 8 % of students	Grade 12 % of students	Grade 8 % of students	Grade 12 % of students
Male	6.4 (0.4)	7.0 (0.4)	8.2 (0.4)	13.4 (0.5)
Female	9.9 (0.5)	13.3 (0.7)	3.6 (0.2)	4.4 (0.2)
White	6.5 (0.5)	8.3 (0.5)	5.7 (0.3)	9.4 (0.4)
Black	11.1 (0.8)	15.0 (0.8)	5.5 (0.4)	5.7 (0.5)
Hispanic	10.7 (0.6)	13.6 (1.4)	8.2 (0.5)	7.3 (0.7)
Other	20.9 (2.1)	27.1 (2.3)	4.7 (0.6)	7.8 (1.2)
Public School	7.6 (0.3)	9.8 (0.4)	6.3 (0.2)	8.7 (0.3)
Non-publ. Sch.	12.3 (2.2)	13.4 (2.1)	2.2 (0.4)	8.8 (1.0)

Students vary greatly in the time they spend on homework. Some spend more than two hours on homework each day; others spend no time at all.[2] Female students were more likely to spend large amounts of time on homework; males were more likely to say they don't do homework.

Among the racial/ethnic groups, Black and Hispanic students were more likely than their White peers to spend more than two hours on homework each day. Almost one-third of twelfth-grade students in the racial/ethnic category "other," (Asian-American and American Indian students) spend more than two hours on homework each day.

At the eighth and twelfth grades, non-public school students were more likely than their public school peers to spend more than two hours each day on homework.

Notes

1. Research has shown that homework has a powerful positive effect on achievement even when other well known influences on achievement, such as ability, family background, and ethnicity are controlled. Students, parents, and teachers can work together to ensure that homework is done consistently (Keith, Reimers, Fehrmann, Pottebaum & Aubey, 1986). In addition, teachers can promote higher achievement of students by grading and commenting on their homework (Paschal, Weinstein, & Walberg, 1984).
2. In 1983, NAEP found that 36 percent of 13-year-olds and 44 percent of 17-year-olds had no homework assigned the day before the assessment, or did not do their assignments (Ward, Mead, and Searles, 1983). The 1988 data show that, compared to students in 1986, fewer students report that they do not do homework.

References

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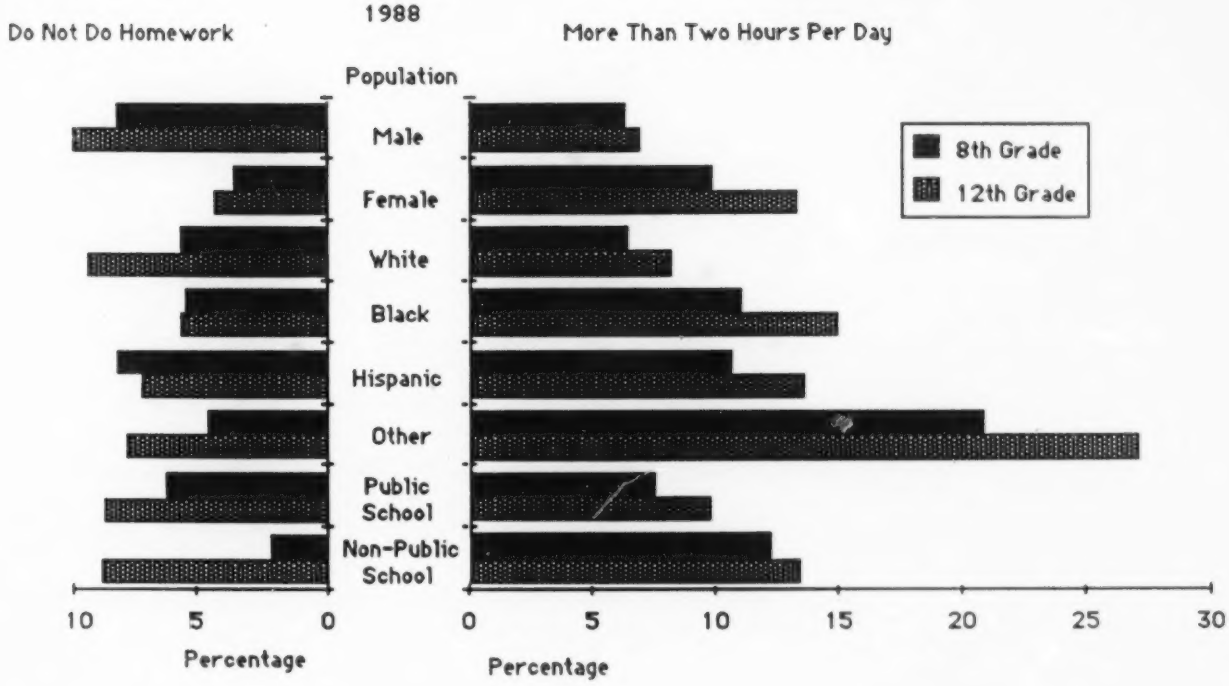
New Jersey Education Association, (no date). Homework: It can help. Trenton, NJ: author.

Paschal, R. A., Weinstein, T., & Walberg, H. J. (1984). The effects of homework on learning: A quantitative synthesis. Journal of Educational Research, 78, 97-104.

Ward, B., Mead, N. A., & Searls, D. T. (1983). The relationship of students' academic achievement to television watching, leisure time reading and homework. Denver, CO: Education Commission of the States.

Figure 12
Homework
1988



Epilogue

The data presented in this document vary widely in content and implications. The first section, on students' biographical data, presented a picture of increasing diversity: At the lower grade levels, White students compose a smaller portion of the demographic pie and languages other than English are spoken by more students. At the upper grades especially, there is great diversity in students' school experiences, including academic program and time spent on homework. Ultimately, this variety is expressed in students' academic and career aspirations.

In this report, NAEP data were interpreted in the light of associated research. Some of the findings: (1) Excessive television viewing is negatively associated with school achievement, yet many youngsters watch television six hours or more each day. (2) Many students from all racial/ethnic groups aspire to a college education, however, they do not realize their aspirations equally. (3) Large proportions of high school seniors work part-time jobs; these enrich the educational experience of some students, but not all. (4) Specific courses taken by students vary by demographic variables. Hispanic students, for example, are less likely to study science in seventh grade than are White and Black students. (5) Students vary substantially by subgroup in the time devoted to homework each day.

Some of the findings may be surprising, others obvious, but all important--and all have policy implications. We believe that timely reporting of the kinds of data presented here, along with findings of relevant research, could be a valuable resource for anyone concerned with education. The present report is one model of how this can be done. Additions, elaborations, and restructuring are all possible. We can envision data from many different longitudinal and cross-sectional studies compiled into a single report, issued regularly, which would interpret trend data in light of educational research. Whatever the form, we hope that in the future, mechanisms for reporting these kinds of indicators will be current, interpretive, and understandable to the non-specialist.